

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of the claims in this application.

Listing of Claims:

1. (Previously Amended) A process for activating a basic metal oxide double bond isomerization catalyst which comprises at least one step of contacting the basic metal oxide catalyst under activation conditions with a dry inert gas containing not more than about 5 ppm molecular oxygen by volume.
2. (Original) The process of claim 1 wherein the inert gas contains no more than about 2 ppm of molecular oxygen.
3. (Original) The process of claim 1 wherein the inert gas contains no more than about 1 ppm of molecular oxygen.
4. (Original) The process of claim 1 wherein the inert gas is nitrogen.
5. (Original) The process of claim 1 wherein the activation conditions of the at least one step include a temperature of at least about 550°C and a period of time of at least about 6 hours.

6. (Original) The process of claim 1 wherein the basic metal oxide is selected from the group consisting of magnesium oxide, calcium oxide, barium oxide, lithium oxide and combinations thereof.

7. (Original) The process of claim 1 wherein the basic metal oxide is magnesium oxide.

8. (Original) The process of claim 1 further including the step of decoking the catalyst prior to contacting the catalyst with dry inert gas, wherein decoking the catalyst comprises contacting the catalyst with an inert gas combined with at least about 2 percent by weight molecular oxygen at a temperature of at least about 460°C for at least about 6 hours.

9. (Original) The process of claim 8 wherein decoking the catalyst further comprises contacting the catalyst with an inert gas combined with at least about 20 percent molecular oxygen at a temperature of at least about 500°C for at least 18 hours.

10. (Currently Amended) A ~~basic metal oxide~~ catalyst composition for double bond isomerization treated in accordance with the process of claim 1 consisting essentially of a basic metal oxide and having substantially no activity-affecting amount of water or carbon dioxide.

11. (Original) The basic metal oxide catalyst of claim 10 wherein the basic metal oxide is selected from the group consisting of magnesium oxide, calcium oxide, barium oxide, lithium oxide and combinations thereof.

12. (Original) The basic metal oxide catalyst of claim 11 wherein the basic metal oxide is magnesium oxide.

Claims 13 to 21 (Cancelled).

22. (Previously Added) The process of claim 1 wherein the double bond isomerization catalyst is for the conversion of internally olefinic compounds to alpha olefinic compounds.

23. (Previously Added) A process for activating a basic metal oxide isomerization catalyst which comprises at least one step of contacting the basic metal catalyst under activation conditions with a flowing atmosphere consisting essentially of a dry inert gas which has been passed through an oxygen removal system so as to contain no more than about 5 ppm molecular oxygen by volume.

24. (New) The process of claim 1 wherein said activation conditions include a temperature of at least about 500° C and a time sufficient to remove from the basic metal oxide substantially all activity-affecting amounts of water and carbon dioxide.

25. (New) A catalyst composition for double bond isomerization consisting essentially of a basic metal oxide characterized by a deactivation rate of no more than 0.108% conversion loss per hour as measured by the isomerization of 1-butene at 75 psig, 510° F and 9 WHSV.